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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,891	09/11/2003	Scott Douglas Kaiser	5760-13600	5003

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EXAMINER

WACHSMAN, HAL D

ART UNIT PAPER NUMBER

2857

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/659,891	<b>Applicant(s)</b> KAISER, SCOTT DOUGLAS	
	<b>Examiner</b> Hal D Wachsman	<b>Art Unit</b> 2857	<i>Am</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5-4-04</u> . | 6) <input type="checkbox"/> Other: _____  |

1. The use of the trademark Veritas's SANPoint Control (see page 8, paragraph 0021, of the specification) has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

2. Page 20, paragraph 0052, of the specification cites "SRM" which has not been defined. Appropriate correction is required.

3. Claims 1-33 are objected to under 37 C.F.R. 1.75(a) for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The preamble of claim 1 cites "A system, comprising:" however a system for what exactly is being referred to here ? This same type of problem also occurs in the preamble of claim 15. Claim 5, line 1, cites "the storage factors" however there were two groups of storage factors referred to in claim 4 previously and thus claim 5 does not particularly point out which group or groups are being referred to here. This same type of problem also occurs in claim 19, line 3, claim 28, line 4. Claim 7, line 3, cites "one or more conditions" however is this the same one or more conditions already referred to in claim 1 ? This same type of problem also occurs in claim 8, line 3. The preamble of claim 16 cites "A method, comprising:" but a method for what exactly is being referred to here ? This same type of problem also occurs in the preamble of claim 25. Claim 18, line 2, cites "given a storage availability risk level" however is this the same storage availability risk level already referred to in claim 16 ? This same type of problem also

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occurs in claim 27, line 3, claim 30, line 3. Claim 18, line 2, cites "a storage requirement" however is this the same storage requirement already referred to in claim 16 ? The examiner asks the applicant to better claim the limitations cited above. While the examiner understands the intentions of the applicant he feels confusion could be drawn from the limitations cited above. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 is a hybrid claim, that is a single claim which claims both an apparatus and the method steps of using the apparatus (see Ex parte Lyell, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990)) which is indefinite. The preamble of claim 1 first sets forth "A system..." followed by in the body of the claim the apparatus limitations "a processor" and "a memory comprising program instructions..". However, this is followed by the method steps of using this apparatus "collect storage demand data.." and "determine a storage requirement for the storage system..." creating ambiguity in the claim.

***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-14 and 16-33 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. As was already shown in paragraph 5 above, claim 1 is a hybrid claim and is non-statutory because the claim is directed to neither a "process" nor a "machine", but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which was drafted so as to set forth the statutory classes of invention in the alternative only.

Claims 16-24 are non-statutory because these are method claims that are not computer implemented, containing a mathematical algorithm solving a mathematical problem without a clearly defined practical application of the claimed method or does not draw a conclusion as to the final end result of the mathematical operation being directed toward a practical application. The method claims do not fall into either of the "safe harbors" defined in the Guidelines for Computer-Implemented Inventions in that there is no manipulation of measured data representing physical objects or activities to achieve a practical application (pre-computer process activity – data gathering: Examiner's note: the "collecting storage demand data for a storage system" step can be user-entered as shown on page 3, paragraph 0008 of the specification which does not qualify as pre-computer process activity) or the performance of independent physical acts (post-computer process activity).

Claims 25-33 are non-statutory because claim 25 states "A computer-accessible medium comprising program instructions, wherein the program instructions are

configured to implement:..." however as the program instructions are not being executed such as on a general purpose computer here the functionality of the computer-accessible medium with program instructions is not being realized.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-3, 7, 9, 13-18, 22, 24-27, 31 and 33 are rejected under 35

U.S.C. 102(e) as being anticipated by Talluri (US 2004/0153481 A1).

As per claim 1, Talluri (Abstract, figures 5, 6, page 3, paragraph 0036) discloses "a processor; and a memory comprising program instructions, wherein the program instructions ...executable by the processor to:". Talluri (Abstract, page 6, paragraphs 0072, 0073) discloses "collect storage demand data for a storage system". Talluri (Abstract, figure 5, page 2, paragraphs 0015, 0016, page 6, paragraphs 0072, 0073, pages 7-8, paragraph 0092, page 8, paragraphs 0096, 0098) discloses "determine a storage requirement for the storage system...given storage availability risk level under one or more conditions indicated by the storage demand data".

As per claim 2, Talluri (Abstract, figure 5, page 2, paragraphs 0015, 0016, page 6, paragraphs 0072, 0073, pages 7-8, paragraph 0092, page 8, paragraphs 0096, 0098) discloses the feature of this claim.

As per claim 3, Talluri (page 2, paragraph 0015, page 5, paragraphs 0061-0063, 0065) discloses the feature of this claim.

As per claim 7, Talluri (Abstract, figure 5, page 2, paragraphs 0015, 0016, page 6, paragraphs 0072, 0073, pages 7-8, paragraph 0092, page 8, paragraphs 0096, 0098) discloses the feature of this claim.

As per claim 9, Talluri (Abstract, figures 5, 6) discloses the feature of this claim.

As per claim 13, Talluri (page 2, paragraph 0017) discloses the feature of this claim.

As per claim 14, Talluri (page 1, paragraphs 0007-0009) discloses the feature of this claim.

As per claim 15, Talluri (Abstract, page 6, paragraphs 0072, 0073) discloses the means for collecting storage demand data for a storage system. Talluri (Abstract, figure 5, page 2, paragraphs 0015, 0016, page 6, paragraphs 0072, 0073, pages 7-8, paragraph 0092, page 8, paragraphs 0096, 0098) discloses the means for determining one or more conditions as well as the means for determining a storage requirement for the storage system.

As per claim 16, Talluri (Abstract, page 6, paragraphs 0072, 0073) discloses the collecting step. Talluri (Abstract, figure 5, page 2, paragraphs 0015, 0016,

page 6, paragraphs 0072, 0073, pages 7-8, paragraph 0092, page 8, paragraphs 0096, 0098) discloses the determining step.

As per claim 17, Talluri (Abstract, figure 5, page 2, paragraphs 0015, 0016, page 6, paragraphs 0072, 0073, pages 7-8, paragraph 0092, page 8, paragraphs 0096, 0098) discloses the feature of this claim.

As per claim 18, Talluri (page 2, paragraph 0015, page 5, paragraphs 0061-0063, 0065) discloses the feature of this claim.

As per claim 22, Talluri (Abstract, figures 5, 6) discloses the feature of this claim.

As per claim 24, Talluri (page 2, paragraph 0017) discloses the feature of this claim.

As per claim 25, Talluri (Abstract, page 6, paragraphs 0072, 0073) discloses the collecting step. Talluri (Abstract, figure 5, page 2, paragraphs 0015, 0016, page 6, paragraphs 0072, 0073, pages 7-8, paragraph 0092, page 8, paragraphs 0096, 0098) discloses the determining step.

As per claim 26, Talluri (Abstract, figure 5, page 2, paragraphs 0015, 0016, page 6, paragraphs 0072, 0073, pages 7-8, paragraph 0092, page 8, paragraphs 0096, 0098) discloses the feature of this claim.

As per claim 27, Talluri (page 2, paragraph 0015, page 5, paragraphs 0061-0063, 0065) discloses the feature of this claim.

As per claim 31, Talluri (Abstract, figures 5, 6) discloses the feature of this claim.



As per claim 33, Talluri (page 2, paragraph 0017) discloses the feature of this claim.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 8, 21 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talluri (US 2004/0153481) in view of Jacobus et al. (US 20040068455).

As per claims 8, 21 and 30, Talluri (Abstract, figure 5, page 2, paragraphs 0015, 0016, page 6, paragraphs 0072, 0073, pages 7-8, paragraph 0092, page 8, paragraphs 0096, 0098) discloses the feature of this claim with the exception of clearly disclosing the lead time to acquire new storage. However, Jacobus et al. (page 5, paragraph 0069) teach that availability is the fraction of the demand that the firm would actually get from its suppliers at sufficient lead time to avoid shortages. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Jacobus et al. to the invention of Talluri as specified above and consider the lead time to acquire new storage, because the amount of lead time in acquiring new storage would be of significant importance in avoiding shortages of storage space.

12. If a copy of a provisional application listed on the bottom portion of the accompanying Notice of References Cited (PTO-892) form is not included with this Office action and the PTO-892 has been annotated to indicate that the copy was not readily available, it is because the copy could not be readily obtained when the Office action was mailed. Should applicant desire a copy of such a provisional application, applicant should promptly request the copy from the Office of Public Records (OPR) in accordance with 37 CFR 1.14(a)(1)(iv), paying the required fee under 37 CFR 1.19(b)(1). If a copy is ordered from OPR, the shortened statutory period for reply to this Office action will not be reset under MPEP § 710.06 unless applicant can demonstrate a substantial delay by the Office in fulfilling the order for the copy of the provisional application. Where the applicant has been notified on the PTO-892 that a copy of the provisional application is not readily available, the provision of MPEP § 707.05(a) that a copy of the cited reference will be automatically furnished without charge does not apply.

13. The following references are cited as being art of general interest: Chang et al. (US 2004/0054618 A1) which disclose software application domain and storage domain risk analysis, Honma et al. (US 2004/0073677 A1) which disclose a computer system using a storage area network and Karpoff (US 2003/0135385 A1) which disclose deploying profitable storage services.

14. No claims are allowed.


15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal D Wachsman whose telephone number is 571-272-

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2225. The examiner can normally be reached on Monday to Friday 7:00 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Hal D Wachsmann  
Primary Examiner  
Art Unit 2857

HW  
September 5, 2004